

REMARKS

Claims 1-5, 9-10, 12, and 13-18 were pending and under consideration.

In the Office Action, Claims 1-5, 9-10 and 14-18 were rejected.

With this Amendment, Claim 1 is amended, and Claims 9, 10, and 12 - 19 are cancelled.

Accordingly, Claims 1 - 5 are now at issue.

I. Election/Restrictions

The Examiner indicates that newly submitted claims 12 and 13 are directed to an invention that is independent or distinct from the invention originally claimed and are withdrawn.

Applicants have cancelled Claims 12 and 13. Thus, the Examiner's withdrawal of Claims 12 and 13 is now moot.

II. 35 U.S.C. § 102 Anticipation Rejection of Claims

Claims 1-2, 4 and 9 were rejected under 35 U.S.C. §102(b) as being anticipated by Fujimori et al. (Fujimori) (U.S. Publication No. 2002/0075441 A1). Although, Applicants respectfully traverse these rejections, Claim 1 has been amended to clarify the invention and remove any ambiguities that may have been the basis for these rejections. Applicants respectfully traverses this rejection.

Claim 1 is directed to a liquid crystal panel. The liquid crystal panel comprises a driving substrate, pixels, signal lines and scanning lines, an alignment film, a counter substrate, a liquid crystal layer, and at least one projection provided in each of the pixels.

Amended Claim 1 recites that “at least one projection provided in each of the pixels at a substantially central position, relative to two opposite boundaries of the corresponding pixel, the two opposite boundaries being parallel to the rubbing direction.”

Fujimori fails to disclose or suggest the claimed central position of the at least one projection relative to two opposite boundaries parallel to the rubbing direction. However, Fujimori does disclose alternate positions of the columnar spacer 10 within the pixel region. In fact, Fujimori indicates that the substrate 1 and the opposite substrate 11 are located opposite each other with the columnar spacers 10 therebetween (see paragraph [0065]). Fujimori further indicates that the columnar spacers 10 are elongated in the direction connecting the substrate 1 and the opposite substrate 11 in those parts of the liquid crystal layer 4 where the thickness of the liquid crystal 4 (liquid crystal cell gap) is smallest (see paragraph [0089]). In addition, the columnar spacer 10 is located over the black matrix (BM) 6 on the blue filter 5B and separated from its adjacent columnar spacers 10 by interval equal to the pixel pitch...” (see paragraph [0090]). Still further, Fujimori states that alternatively the columnar spacers 10 may be disposed on the BMs 6 on all the pixels of the color filters 5R, 5G, and 5B, and that the columnar spacer 10 is separated from its adjacent by a 100 μm interval in the direction of the color filters 5R, 5G, and 5B and by 300 μm interval in the direction of the stripe of the color filter 5 (see paragraphs [0107] and [0108]).

Thus, Fujimori is silent about the columnar spacer (projection) being provided at a substantially central position relative to two opposite boundaries parallel to the rubbing direction.

Accordingly, Claim 1 is allowable over Fujimori. Dependent Claims 2 and 4 are also allowable for at least the same reasons. The rejection of Claims 9, 14, and 16-18 is now moot in view of their cancellations.

Applicants respectfully request that the claim rejections under 35 U.S.C 102(b) be withdrawn.

III. 35 U.S.C. § 103 Obviousness Rejection of Claims 3, 9, and 18

Claims 3, 9, and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fujimori and further in view of Miura et al. (Miura) (US Patent No. 5,877,836). Applicants respectfully traverse these rejections.

In regard to Claim 3 dependent upon Claim 1, Claim 1 has been shown above to be allowable over Fujimori. Thus, the cited references, Fujimori and Miura, may not properly be combined to reject dependent Claim 1. As such, Claim 3 is also allowable over the cited references.

In regard to Claims 9 and 18, their respective rejections are now moot in view of their cancellations.

Accordingly, Applicants respectfully request that these 103(a) rejections be withdrawn.

IV. 35 U.S.C. § 103 Obviousness Rejection of Claims 5 and 10

Claims 5 and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fujimori as applied to claim 1 or 9 above and in further view of Kaise et al. (Kaise) (US Patent No. 6,788,372). Applicants respectfully traverse these rejections.

In regard to Claim 5, Claim 1 has been shown above to be allowable over Fujimori. Thus, the cited references, Fujimori and Kaise, may not properly be combined to reject dependent Claim 1. As such, Claim 5 is also allowable over the cited references.

In regard to Claim 10, this claim rejection is now moot in view of its cancellation.

Accordingly, Applicants respectfully request that these 103(a) rejections be withdrawn.

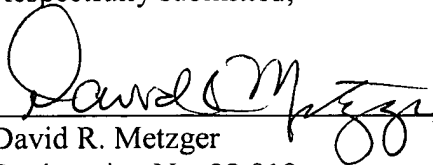
V. Conclusion

In view of the above amendments and remarks, Applicant submits that all claims are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

Dated: February 15, 2005

By: _____



David R. Metzger

Registration No. 32,919

SONNENSCHN NATH & ROSENTHAL LLP

P.O. Box 061080

Wacker Drive Station, Sears Tower

Chicago, Illinois 60606-1080

(312) 876-8000